

Amendments to the Drawing:

Applicants submit a Replacement Sheet for the newly amended Figure 30. Per Examiner's suggestion, the amended Figure 30 now includes an annular bearing surface on the body that is spherically convex in shape. The amended Figure 30 is now consistent with the Specification. No new matter is introduced.

**RECEIVED
CENTRAL FAX CENTER****FEB 28 2007**Remarks/ArgumentsStatus of the Claims

Claims 1-47 were originally filed and were canceled. In the June 14, 2006 Amendment new Claims 48-66 were added and currently stand rejected. The present Amendment adds new Claims 67-69. The New Claims 67-69 are fully supported by the Specification. See FIG. 29. Accordingly, no new matter is introduced. Upon entry of this Amendment, Claims 48-63 and 67-69 are pending.

Applicants respectfully request reconsideration and withdrawal of rejection in view of the following Remarks/Arguments.

A. Withdrawn Claims: 37 C.F.R. § 1.142(b)

Claims 64-66 were withdrawn from consideration in the Office Action mailed August 31, 2006. The Examiner alleges Claims 64-66 are directed to a non-elected method and withdrew them from consideration pursuant to 37 C.F.R. § 1.142(b).

Without agreeing to the merits of the Examiner's rejection, and to expedite the prosecution of this Application, Applicants hereby cancel Claims 64-66, without prejudice. Applicants reserve the right to file a continuation to pursue the subject matter covered in these canceled Claims.

B. Information Disclosure Statement

Pursuant to 37 C.F. R. §§ 1.56, 1.97 and 1.98, Applicants submitted an IDS on June 19, 2006. Applicants believe the documents are relevant to the patentability of the present invention. In the August 31, 2006 Office Action, the Examiner requested that Applicants point out twenty or so the most relevant documents. Applicants note that a similar request was made in U.S. Patent Application No. 10/668, 173, a continuation of U.S. Patent No. 6,749,386 to Harris, from which this Application claims priority as a continuation-in-part. Because Applicants responded to the Examiner's request in U.S. Patent Application No. 10/668,173 by submitting a list of the most relevant documents, Applicants submit the same list of documents herewith.

1. U.S. Patent No. 292,063

18. U.S. Patent No. 3,078,899

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| 2. U.S. Patent No. 367,196 | 19. U.S. Patent No. 3,417,802 |
| 3. U.S. Patent No. 738,217 | 20. U.S. Patent No. 3,693,685 |
| 4. U.S. Patent No. 752,628 | 21. U.S. Patent No. 3,851,690 |
| 5. U.S. Patent No. 827,562 | 22. U.S. Patent No. 3,942,570 |
| 6. U.S. Patent No. 889,593 | 23. U.S. Patent No. 4,339,179 |
| 7. U.S. Patent No. 948,326 | 24. U.S. Patent No. 4,377,361 |
| 8. U.S. Patent No. 1,015,059 | 25. U.S. Patent No. 4,812,095 |
| 9. U.S. Patent No. 1,040,215 | 26. U.S. Patent No. 4,941,787 |
| 10. U.S. Patent No. 1,140,974 | 27. U.S. Patent No. 5,141,374 |
| 11. U.S. Patent No. 1,297,845 | 28. U.S. Patent No. 5,409,338 |
| 12. U.S. Patent No. 1,622,581 | 29. U.S. Patent No. 5,984,602 |
| 13. U.S. Patent No. 1,952,305 | 30. U.S. Patent No. 6,135,689 |
| 14. U.S. Patent No. 2,210,455 | 31. U.S. Patent No. 6,776,565 |
| 15. U.S. Patent No. 2,253,241 | 32. U.S. Pub. No. 2002/0039522A1 |
| 16. U.S. Patent No. 2,783,810 | 33. German Patent No. DE 298 15 492 U1 |
| 17. U.S. Patent No. 2,562,032 | 34. German Patent No. DE 199 56 287 A1 |

For the Examiner's convenience, Applicants organized the above listed references, 1-34, into a supplement IDS on the attached modified PTO Form No. 1449. Because Applicants have previously submitted copies and translations of German Patents DE 298 15 492 U1 and DE 199 56 287 A1, no additional copies are submitted herewith.

It is respectfully requested the Examiner initial the supplemental IDS submitted herewith, as well as, initial all other relevant documents submitted in all prior IDSs. Applicants further respectfully request the references listed in the supplemental IDS submitted herewith be made of record and appear among the "References Cited" on any patent to issue therefrom.

Applicant believes no fees are due in with the supplemental IDS included herewith. Should any fees be due, the Commissioner is authorized to charge Deposit Account No. 502318.

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C. Double Patenting: 37 C.F.R. § 1.75

Claims 62 and 63 are objected to under 37 C.F.R. § 1.75. The Examiner alleges that Claims 62 and 63 are a substantial duplicate of Claims 58 and 59. Applicants respectfully disagree with the Examiner's objection.

It is Applicant's right to re-state, by plural claiming, his or her invention in a reasonable number of ways. Courts have consistently held that a mere difference in scope between claims would be sufficient. See M.P.E.P. § 706.03(k). As asserted by the Examiner, Claim 58 and 62 are "substantial duplicates," implying that these two claims are not exact duplicates and therefore have a difference in claim scope. Therefore, Applicants have the right to claim the invention in these two ways. Accordingly, Applicants respectfully request the Examiner's objection to be withdrawn.

D. Drawing

The drawing (i.e., Figure 30) was objected to under 37 C.F.R. § 1.83(a). The Examiner pointed out, while admitting the feature is fully disclosed in the specification, that Figure 30 does not include an annular bearing surface on the body that is spherically convex in shape.

Applicants respectfully submit a Replacement Sheet for Figure 30 showing an annular bearing surface on the body that is spherically convex in shape. No new matter is introduced.

E. Claim Rejections: 35 U.S.C. § 112

Claim 60 stands rejected under 35 U.S.C. § 112. The Examiner alleges Claim 60 is indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per the Examiner's suggestion, Applicants delete the element "e)" from Claim 60. Accordingly, Applicants respectfully request the Examiner's objection be withdrawn.

F. Claim Rejections: 35 U.S.C. § 102

Claims 48-57 and 60-61 stand rejected under 35 U.S.C. § 102. Applicants respectfully disagree and request that the Examiner's 35 U.S.C. § 102 rejections be withdrawn.

The present invention is directed to a novel fastener assembly. In one embodiment, the invention includes a body having a torque transmitter, a thread, a retaining surface, a notch, and a cap. See Pg. 10, ll. 6-10. The notch is positioned on the retaining surface and located at one end of the body. See Pg. 6, ll. 1-5. The cap includes an inner surface retaining the cap on the body through an interference fit with the notch. See Pg. 6, ll. 21-26. In another embodiment, the invention includes a body including a torque transmitter and an annular bearing surface. See Pg. 10, ll. 6-10. The annular bearing surface is spherically convex in shape. See Pg. 7, ll. 24-26. The torque transmitter includes a groove retaining the cap on the body. See Pg. 4, ll. 23-29. The cap includes a stainless steel material and is shaped according to the grooved body so that when the body is torqued an interference fit is achieved between the cap and the body. See Pg 12, ll. 3-6.

To better present the invention and to expedite the prosecution of this Application, Applicants amended Claims 48-54, 57. No new matter is introduced.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)).

GB 2179416 A

The Examiner alleges Claims 48, 49, 50, 52, 54, 55 and 56 are anticipated by GB 2179416 A (hereinafter referred to as "Edge"). Applicants respectfully disagree and request the Examiner's rejection be withdrawn.

The newly amended independent Claim 48 recites, *inter alias*, a retaining surface and a notch positioned on the retaining surface and located at one end of the body and a cap with

an inner surface retaining the cap on the body through an interference fit with the notch. Edge fails to disclose or suggest a retaining surface and a notch positioned on the retaining surface and located at one end of the body. Further, Edge fails to disclose or suggest the cap with an inner surface retaining the cap on the body through an interference fit with the notch.

The Examiner alleges Edge teaches "the cap is held onto the body via an interference fit facilitated by at least one groove." Contrary to the Examiner's assertion, Applicants submit that Edge teaches the cap held onto the body by "staking." See Edge, Col. 2, ll. 69-72. One skilled in art would recognize that staking the cap is not identical or equivalent to the cap held onto the body via an interference fit. For at least these reasons, Edge does not anticipate these claims.

FR 633186 A

The Examiner alleges Claims 48, 49, 50, 52, 53, 54, 56, 60 and 61 are anticipated by FR 633186 A (hereinafter referred to as "Valery"). Applicants respectfully disagree and request the Examiner's rejection be withdrawn.

The newly amended Claim 48 now recites, *inter alias*, a retaining surface and a notch positioned on the retaining surface and located at one end of the body and a cap with an inner surface retaining the cap on the body through an interference fit with the notch. Valery fails to teach a retaining surface and a notch positioned on the retaining surface and located at one end. Further, Valery fails to disclose or suggest the cap with an inner surface retaining the cap with an interference fit with the notch.

The Examiner alleges Valery teaches "the cap held onto the body via an interference fit facilitated by at least one groove. (unlabeled annular indentation)." Contrary to the Examiner's assertion, Applicants submit that Edge teaches the cap held onto the by "crimping." See Valery translation, Pg. 1, ll. 7-8. One skilled in art would recognize that crimping the cap is not identical or equivalent to the cap held onto the body via an interference fit. For at least these reasons, Valery does not anticipate these claims.

Claim 60 recites, *inter alias*, a torque transmitter that includes a groove that, at least in part, retains a cap on the body and the cap is shaped according to the grooved body so that when the body is torqued and interference fit is achieved between the cap and the body. Valery fails to disclose or suggest a torque transmitter that includes a groove that, at least in part, retains a cap on the body and the cap is shaped according to the grooved body so that when the body is torqued and interference fit is achieved between the cap and the body.

U.S. Patent No. 4,143,578 to Becker

The Examiner alleges Claims 48, 49, 50 52, 54, 55 and 56 are anticipated by U.S. Patent No. 4,143,578 to Becker (hereinafter referred to as "Becker"). Applicants respectfully disagree and request the Examiner's rejection be withdrawn.

The amended Claim 48 now recites, *inter alias*, a retaining surface and a notch positioned on the retaining surface and located at one end of the body and a cap with an inner surface retaining the cap on the body through an interference fit with the notch. Becker fails to disclose or suggest a retaining surface and a notch positioned on the retaining surface and located at one end of the body. Further, Becker fails to disclose or suggest a cap with an inner surface retaining the cap on the body through an interference fit with the notch.

The Examiner alleges "the cap is held onto the body via an interference fit facilitated by at least one groove." The Examiner is correct to point out that Becker teaches a groove; however, the groove in Becker is a sharp essentially right angled shoulder which is required to crimp the cap to the body. *See* Becker, Col. 2, ll. 54-62. As previously stated above, one skilled in art would recognize that crimping the cap is not identical or equivalent to the cap held onto the body via an interference fit. For at least these reasons, Becker does not anticipate these claims.

U.S. Patent No. 4,557,654 to Masuda *et al*

The Examiner alleges Claims 48, 49, 50 52, 54, 55 and 56 are anticipated by U.S. Patent No. 4,557,654 to Masuda *et al* (hereinafter referred to as "Masuda"). Applicants respectfully disagree and request the Examiner's rejection be withdrawn.

The amended Claim 48 now recites, *inter alias*, a retaining surface and a notch positioned on the retaining surface and located at one end of the body and a cap with an inner surface retaining the cap on the body through an interference fit with the notch. Masuda fails to disclose or suggest a retaining surface and a notch positioned on the retaining surface and located at one end of the body. Further, Masuda fails to disclose or suggest a cap with an inner surface retaining the cap on the body through an interference fit with the notch.

The Examiner alleges Masuda teaches "the cap is held onto the body via an interference fit facilitated by at least one groove comprising a plurality of notches. Contrary to the Examiner's assertion, Masuda teaches the cap secured by "extrusions 26 to be engaged with said recesses 22 so that they operate as turning-proof means of the cover 24, when the cover 24 is applied after being engaged with the bolt 23. Masuda, Col. 5, ll. 31-35. One skilled in art would recognize that holding the cap by extrusions is not identical or equivalent to the cap held onto the body via an interference fit. For at least these reasons, Masuda does not anticipate these claims.

U.S. Patent No. 4,427,326 to Hobson et al.

The Examiner alleges Claims 48, 49, 50, 52, 54, 55 and 56 are anticipated by U.S. Patent No. 4,427,326 to Hobson *et al.* (hereinafter referred to as "Hobson"). Applicants respectfully disagree and request the Examiner's rejection be withdrawn.

The amended Claim 48 now recites, *inter alias*, a retaining surface and a notch positioned on the retaining surface and located at one end of the body and a cap with an inner surface retaining the cap on the body through an interference fit with the notch. Hobson fails to disclose or suggest a retaining surface and a notch positioned on the retaining surface and located at one end of the body. Further, Hobson fails to disclose or suggest a cap with an inner surface retaining the cap on the body through an interference fit with the notch.

The Examiner alleges Hobson teaches "the cap his held onto the body via an interference fit facilitated by at least one groove." Contrary to the Examiner's assertion,

Applicants respectfully submit that Hobson teaches a frangible neck 32 fabricated to fracture at a readily achievable torque separating portion 20 and portion 30; a snap-ring 40 is disclosed to lock portion 20 and portion 30 together. See Hobson, Col. 3, ll. 41-54. One skilled in art would recognize securing two portions by way of a snap ring is not the same as the cap held onto the body via an interference fit. For at least these reasons, Hobson does not anticipate these claims.

U.S. Patent No. 3,960,047 to Liffick

The Examiner alleges Claims 48, 49, 50, 52, 54, 55 and 56 are anticipated by U.S. Patent No. 3,960,047 to Liffick (hereinafter referred to as "Liffick"). Applicants respectfully disagree and request the Examiner's rejection be withdrawn.

The amended Claim 48 now recites, *inter alias*, a retaining surface and a notch positioned on the retaining surface and located at one end of the body and a cap with an inner surface retaining the cap on the body through an interference fit with the notch. Liffick fails to disclose or suggest a retaining surface and a notch positioned on the retaining surface and located at one end of the body. Further, Liffick fails to disclose or suggest a cap with an inner surface retaining the cap on the body through an interference fit with the notch.

U.S. Patent No. 5,350,266 to Espey et al.

The Examiner alleges Claims 48, 49, 50, 52, 56 and 57 are anticipated by U.S. Patent No. 5,350,266 to Espey et al. (hereinafter referred to as "Espey"). Applicants respectfully disagree and request the Examiner's rejection be withdrawn.

The amended Claim 48 now recites, *inter alias*, a retaining surface and a notch positioned on the retaining surface and located at one end of the body and a cap with an inner surface retaining the cap on the body through an interference fit with the notch. Espey fails to disclose or suggest a retaining surface and a notch positioned on the retaining surface and located at one end of the body. Further, Espey fails to disclose or suggest a cap with an inner surface retaining the cap on the body through an interference fit with the notch.

The Examiner alleges that Espey teaches "the cap is held onto the body via an interference fit facilitated by at least one groove comprising a plurality of notches.. Contrary to the Examiner's assertion, Espey teaches the use of side walls with radial projections 53 and ramps 53 in order to secure the cap with an inner end face that is parallel to the central transverse plane of the cap 40. See Espey, Col. 3, ll. 17-24. One skilled in art would recognize that retaining the cap with radial projections having ramps is not identical or equivalent to the cap held onto the body via an interference fit. For at least these reasons, Hobson does not anticipate these claims.

For at least these reasons, Applicants respectfully submit that the Examiner's references do not anticipate the present invention. Applicants respectfully request that the Examiner's 35 U.S.C. § 102 rejections be withdrawn.

G. Claim Rejections: 35 U.S.C. § 103

Claims 58-63 stand rejected under 35 U.S.C. § 103(a). The Examiner alleges that Claims 58-63 are obvious under 35 U.S.C. § 103(a) in view of Becker to any one of: U.S. Patent No. 4,240,670 to Zorn *et al.* (hereinafter referred to as "Zorn"); or, U.S. Patent No. 1,940,675 to Crowther (hereinafter referred to as "Crowther"); or, Edge. Applicants respectfully disagree and request that the Examiner's rejection be withdrawn.

Applicants submit that the Examiner has not established a *prima facie* obviousness case. The Examiner simply pieced together references to combine and formulate the present invention. References must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention. See M.P.E.P. § 2141 (citing *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986)). Here the Examiner's rejection amounts to mere "hindsight" by the Examiner. Accordingly, the Examiner has not established a *prima facie* obviousness case.

The references must provide teaching, suggestion or motivation to combine

"The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. M.P.E.P. § 2143.01 (Citing *In re mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed.

Cir. 1990)). If the "proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." M.P.E.P. § 2143.01. Similarly, "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teaching of the references are not sufficient to render the claims prima facie obvious." M.P.E.P. § 2143.01. When evaluating whether one or more prior art references suggests or teaches all the claim limitations, each prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. M.P.E.P. § 2141.02.

There must be a reasonable expectation of success and all limitations must be taught

There must be a reasonable expectation of success to modify or combine the prior art to reject claims as prima facie obvious. See M.P.E.P. § 2143.02 (citing *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986)). To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. M.P.E.P. § 2143.03 (citing *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)).

The references must not teach away from each other

A prior art reference may be considered to teach away when 'a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.' *In re Gurley*, 27 F.3d 551, 31 USPQ2d 1130 (Fed. Cir. 1994). That the inventor achieved the claimed invention by doing what those skilled in the art suggested should not be done is a fact strongly probative of non-obviousness. *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986) on reharing, 231 USQP 160 (Fed. Cir. 1986).

Becker in view of Zorn

The Examiner alleges Claims 58-63 are unpatentable over the proposed combination of Becker and Zorn. Applicants respectfully point out that there is no teaching suggestion or motivation to combine these references. Further, the Examiner's proposed combination of Becker and Zorn teach away from each other. The entire point of the nut in Becker is to secure wheels *without* wheel covers. According to Becker "covers are expensive, add weight

to the car and often become lost due to failure, under the extreme stresses imposed by high speed and rapid maneuvering of the vehicle, of the means employed to attach the covers to the wheels.” Becker, Col. 1, ll. 24-28. Though the purpose of Becker is to eliminate the use of a wheel cover, the purpose of the lug nut in Zorn is to secure a wheel cover to a wheel for decorative purposes, as well as, to protect the wheel hub from accumulation of particles, debris, dirt and dust. See Zorn, Col. 1, ll. 16-19. Accordingly, Becker teaches away from the use of a wheel cover, whereas, the lug nut in Zorn is designed to retain a wheel cover. Therefore, Becker and Zorn teach away from each other because the claimed invention does what those skilled in the art suggest not to be done. For at least this reason, the obviousness rejection must fail.

Further, the Examiner’s proposed combination of Becker and Zorn would change the principle of operation of each reference. Becker discloses “a groove configured to form a substantially right angled shoulder axially terminating the polygonal side walls.” Becker, Col. 2, ll. 50-53. On the other hand, Zorn discloses a tapered 48 lug nut 16 used to secure a wheel cover 22 by way of two different apertures (24 and 26). See Zorn, Col. 3, ll. 45-55. Because the purpose of the wheel cover in Zorn is to cover an unfinished wheel and protect the wheel hub, the wheel cover covers as much area as possible. Aperture 26 can not be so large in diameter that it defeats this purpose. Conversely, aperture 24 must be sized to allow the lug nut to seat against the wheel, while still providing a sufficient area for the lug nut to retain the wheel cover. Accordingly, Zorn requires proper dimensions to be maintained between apertures 24 and 26. See Zorn, Col. 4, ll. 33-35. The lug nut in Zorn must have a maximum diameter, disclosed as point 49, which enables the lug nut to pass through aperture 26 and yet seat against aperture 24. The combination of Becker and Zorn would not allow the lug nut to pass through aperture 26 and yet seat against aperture 24 because the groove in Becker would prevent the lug nut from passing through aperture 26. Consequently, the Examiner’s combination would change the principle of operation of the respective references, and therefore, the teachings of the references are not sufficient to render the Claims *prima facie* obviousness. For at least this reason, the obviousness rejection must fail.

Further, The Examiner's proposed combination of Becker and Zorn would change a second principle of operation of each. The purpose of the groove in Becker is to provide a substantially flat surface for the cap to be crimped. See Becker, Col.2, ll. 59-63. On the other hand, Zorn discloses a tapered 48 lug nut 16 with a maximum diameter at point 49 and a resilient washer 52. See Zorn, Col. 2, ll. 3-5. According to Zorn, when the lug nut is torqued the resilient washer expands radially. See Zorn, Col. 2, ll. 21-26. The resilient washer secures the wheel cover against the vehicle wheel without an interference fit. See Zorn, Col. 2, ll. 21-26. The flat surface in Becker would not cause the resilient washer to expand radially. Therefore, the groove in Becker would prevent the seating of the wheel cover without an interference fit. Consequently, the Examiner's combination would change the principle of operation of the respective references, and therefore, the teachings of the references are not sufficient to render the Claims *prima facie* obviousness. For at least these reasons, Applicants respectfully request the Examiner withdraw the rejection.

Becker in view of Crowther

The Examiner alleges Claims 58-63 are unpatentable over the combination of Becker and Crowther. Applicants submit that there is no teaching suggestion or motivation to combine these references. Further, the Examiner's proposed combination of Becker and Crowther would change the principle of operation of the respective references. Becker discloses "a groove configured to form a substantially right angled shoulder axially terminating the polygonal side walls." Becker, Col. 2, ll. 50-53. Becker further discloses the lip of the cup shape cap is crimped over the groove forming triangular configurations 42. See Becker, Col. 2, ll. 59-63. The triangular configurations do not form a flat surface. See Becker, Col. 4, ll. 53-65. On the other hand, Crowther discloses a helical resilient washer 8 with a radial face 9 in contact with the flat radial face 10 of the nut body. See Crowther, Col. 2, ll. 29-33. One object of Crowther is to "provide a positive lock between the constrained surfaces and the constraining surface in such a manner that the relationship between the surfaces will not be destroyed by shock or vibration." Crowther, Col. 1, ll. 44-49. The Examiner's proposed combination of Becker and Crowther would not allow the required relationship between the constrained surface and the constraining surface because the "crimped lip" and "triangular configurations" in Becker would not provide the necessary flat radial face 10 as required in Crowther. Accordingly, the relationship between the

constrained surface and the constraining surface would be destroyed by shock or vibration. Consequently, there is no motivation or suggestion to make the proposed combination. For at least this reason, the obviousness rejection must fail.

Further, the Examiner's proposed combination of Becker and Crowther would not arrive at all of the claim limitations of Claims 58-63. As admitted by the Examiner, Becker fails to disclose the annular bearing surface generally spherically convex in shape. Instead, Becker discloses a bearing surface that is generally frustum in shape. The defect in Becker cannot be cured by Crowther because Crowther does not disclose an annular bearing surface that is spherically generally convex. One skilled in the art recognizes that the bearing surface in Crowther is a frustum shaped bearing surface. Frustum is shaped as "the part that is left when a cone or pyramid is cut by a plane parallel to the base and the apical part is removed. (<http://dictionary.reference.com/browse/frustum>). An annular bearing surface that is spherically convex in shape has a different meaning, namely, "curving out or bulging outward." (http://en.wikipedia.org/wiki/Conical_surface). Assuming *arguendo*, that Becker is combined with Crowther, the combination would not include an annular bearing surface that is spherically convex. For at least this reason, the Examiner's combination does not disclose or suggest all claim limitations. Accordingly, the obviousness rejection must fail.

Further, the Examiner's proposed combination of Becker and Crowther teach away from each other. The groove in Becker enables the cap to be crimped to the body by way of a lip which forms triangular configurations. See Becker, Col. 2, ll. 59-63. According to Becker, the triangular configurations are depressed below the level the adjacent lateral sides. See Becker, Col. 4, ll. 50-65. Although the purpose of Becker is to crimp the cap, thereby forming a surface that is not flat, the purpose in Crowther is to provide a flat radial face 10. According to Crowther, the flat radial face 10 is in contact with the radial face 9 of the helicoidal resilient washer 8. See Crowther, Col. 2, ll. 29-33. The triangular configurations in Becker are designed to prevent rotation, whereas, in any nut and washer application, the nut must rotate against the washer. Therefore, Becker and Crowther teach away from each other because the claimed invention does what those skilled in the art suggest not to be done. For at least these reasons, Applicants respectfully request the Examiner withdraw the rejections.

Becker in view of Edge

The Examiner alleges Edge teaches a generally spherically convex annular bearing surface (16). Applicants do not understand the basis for the Examiner's rejection because (16) is not shown in the figures or the specification of Edge.

Further, the Examiner's proposed combination of Becker and Edge would change the principle of operation of the respective references. Becker discloses "a groove configured to form a substantially right angled shoulder axially terminating the polygonal side walls." Becker, Col. 2, ll. 50-53. Becker further discloses the lip of the cup shape cap is crimped over the groove forming triangular configurations 42. See Becker, Col. 2, ll. 59-63. The triangular configurations do not form a flat surface. See Becker, Col. 4, ll. 53-65. On the other hand, Edge discloses a washer 3 in operation with a steel nut 2 having a cap that hides the washer 3 from view without interfering with the operation of the washer 3. See Edge, Col. 2, ll. 100-105. Accordingly, an object in Edge is to provide a cap which hides the washer and does not interfere with the operation of the washer. The Examiner's proposed combination of Becker and Edge would interfere with the operation of the washer because the "crimped lip" and "triangle configurations" in Becker would not provide the necessary flat radial surface required and would interfere with the operation of the washer. Further, the crimped cap in Becker would not hide the washer 3. Consequently, the Examiner's combination would change the principle of operation of the respective references, and therefore, the teachings of the references are not sufficient to render the Claims *prima facie* obviousness. For at least this reason, the obviousness rejection must fail.

Additionally, Edge is similar to Crowther, in that, Edge discloses a frustum shaped bearing surface and not a bearing surface spherically convex in shape. As such, Edge cannot cure the defects with Becker and the Examiner's proposed combination fails to arrive at the present invention. Assuming *arguendo*, that Becker is combined with Edge, the combination would not include an annular bearing surface that is spherically convex in shape or a groove including a curved surface. Accordingly, for at least this reason, the Examiner's combination does not disclose or suggest all claim limitations. For at least this reason, the obviousness rejection must fail.

Further, the Examiner's proposed combination of Becker and Edge teach away from each other. The groove in Becker enables the cap to be crimped to the body by way of a lip which forms triangular configurations. See Becker, Col. 2, ll. 59-63. According to Becker, the triangular configurations are depressed below the level the adjacent lateral sides. See Becker, Col. 4, ll. 50-65. Although the purpose of Becker is to crimp the cap, thereby forming a surface that is not flat, the purpose in Edge is to have a cap that does not interfere with the operation of the washer 3. According to Edge, washer 3 is in contact with the radial face of the steel nut 2. See Fig. 1. The triangular configurations in Becker are designed to prevent rotation, whereas, in any nut and washer application, the nut must rotate against the washer. Therefore, Becker and Edge teach away from each other because the claimed invention does what those skilled in the art suggest not to be done. For at least these reasons, Applicants respectfully request the Examiner withdraw the rejection.

For at least these reasons, Applicants respectfully submit that the claimed invention is non-obvious and request that the 35 U.S.C. § 103(a) rejection be withdrawn.

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Conclusion

In view of the foregoing, Applicants respectfully request reconsideration, withdrawal of rejections, and allowance of all Claims now present in the application.

The Commissioner is authorized to charge any required fees, including any extension and/or excess claim fees, any additional fees, or credit any overpayment to Deposit Account No. 502318.

Dated: February 28, 2007

Respectfully Submitted,



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